

IN THE CLAIMS:

Please cancel claims 1-14 without prejudice or disclaimer.

1-14. (Cancelled)

Please add new claims 15-30 as follows:

15. (New) A messaging gateway comprising:

a network node layer including modular network nodes for interfacing with mobile devices of a plurality of different communication standards to receive content or service requests from the mobile devices and to route responses to the mobile devices;

a gateway node layer including modular gateway nodes for routing the requests and the responses and for modifying the requests and responses according to device technology and content attributes;

an application access node layer including modular application access nodes for accessing content servers and application servers;

an API framework for creating network, gateway, and access nodes; and

wherein the network nodes:

manage context for a device making a request, and convert an input into a Web request using input data, device context, and application context;

add user and location context to requests;
translate responses into a device-specific format using response data, device context, and application context;
update and store context between device interactions;
include a plurality of adapters, each said adapter associated with a type of mobile device and sheltering application servers and content servers from device capabilities; and

wherein the gateway nodes provide a series of configurable routing, validation, and filtering functions that provide content and routing management of messaging traffic that passes through the gateway node layer, and in which the service provided by the gateway node layer is determined by the path taken through said gateway nodes, and in which:

the gateway nodes control access to Web applications according to user subscriptions, in which responses are split up and routed according to adapter capabilities, content attributes, and user-specified rules,

a filter gateway node processes messages and forwards them in a structured manner, its functionality allowing it to modify or delete a message,

a router gateway node has functionality for routing messages to other nodes according to message contents, gateway parameters, gateway loading, service context, and address information, and

the gateway nodes include database gateway nodes for accessing a database.

16. (New) The messaging gateway as claimed in claim 15, wherein the gateway nodes manage a register of adapter capabilities and of currently accessible adapters for each user.

17. (New) The messaging gateway as claimed in claim 15, wherein the gateway nodes translate service values placed by applications, and route translated data to external systems.

18. (New) The messaging gateway as claimed in claim 15, wherein the gateway node layer includes an archive gateway node for archiving messages.

19. (New) The messaging gateway as claimed in claim 15, wherein the gateway node layer includes content transformation gateway nodes for performing custom

operations on message content, said nodes including a node for performing character set translation.

20. (New) The messaging gateway as claimed in claim 15, wherein the gateway node layer includes application templates providing a web-based front end for application development.

21. (New) The messaging gateway as claimed in claim 15, wherein the filter gateway node is not permitted to re-route messages or to generate new messages.

22. (New) The messaging gateway as claimed in claim 15, wherein a database gateway node has functionality for updating a database with selected contents of messages, and for updating messages with data extracted from a database.

23. (New) The messaging gateway as claimed in claim 22, wherein said database gateway node operates on a specific table of the database using a pre-configured database operation.

24. (New) The messaging gateway as claimed in claim 15, wherein a database gateway node has functionality for authenticating a source address against an access control database.

25. (New) The messaging gateway as claimed in claim 15, wherein a database gateway node has functionality for validating a message against a configurable set of authorization criteria.

26. (New) The messaging gateway as claimed in claim 15, wherein the application access nodes provide alternative interfaces for interactive applications.

27. (New) The messaging gateway as claimed in claim 15, wherein the network nodes, the gateway nodes, and the application access nodes communicate with each other using an XML-compliant mark-up language.

28. (New) The messaging gateway as claimed in claim 27, wherein in said mark-up language, content is defined in elements, in which a root element is an abstraction of a mobile device screen.

29. (New) The messaging gateway as claimed in claim 28, wherein, in said mark-up language, sound streams and images are defined as elements.

30. (New) A computer program product comprising

software code for executing on one or more computers, in which the code is arranged to implement:

a network node layer including modular network nodes for interfacing with mobile devices of a plurality of different communication standards to receive content or service requests from the mobile devices and to route responses to the mobile devices;

a gateway node layer including modular gateway nodes for routing the requests and the responses and for modifying the requests and responses according to device technology and content attributes;

an application access node layer including modular application access nodes for accessing content servers and application servers;

an API framework for creating network, gateway, and access nodes; and

wherein the network nodes:

manage context for a device making a request, and convert an input into a Web request using input data, device context, and application context;

add user and location context to requests;

translate responses into a device-specific format using response data, device context, and application context;

update and store context between device interactions;

include a plurality of adapters, each said adapter associated with a type of mobile device and sheltering application servers and content servers from device capabilities; and

wherein the gateway nodes provide a series of configurable routing, validation, and filtering functions that provide content and routing management of messaging traffic that passes through the gateway node layer, and in which the service provided by the gateway node layer is determined by the path taken through said gateway nodes, and in which:

the gateway nodes control access to Web applications according to user subscriptions, in which responses are split up and routed according to adapter capabilities, content attributes, and user-specified rules,

a filter gateway node processes messages and forwards them in a structured manner, its functionality allowing it to modify or delete a message,

a router gateway node has functionality for routing messages to other nodes according to message contents, gateway parameters, gateway loading, service context, and address information, and

the gateway nodes include database gateway nodes for accessing a database.